

Reference guide (SENA 2)

Early arithmetic strategies EAS (Tasks 1-2)

Stage 0 Emergent	Stage 1 Perceptual	Stage 2 Figurative	Stage 3 Counting on	Stage 4 Facile
Cannot count to 10. Either does not know the names of the numbers or does not know the correct order	Needs to see, touch or hear to work out answer. Counts from one	Can complete tasks involving concealed items but counts from one	Uses larger number and counts on to find the answer	Uses known facts and other non-count-by-one strategies, e.g. doubles, partitioning, to solve problems

Numeral identification (Tasks 3-12)

Level 1 (1-10)	Level 2 (1-20)	Level 3 (1-100)	Level 4 (1-1000)	Level 5 (1-10 000)
Recognises numerals 1-10	Recognises numerals 1-20	Recognises numerals to 100	Recognises numerals to 1000	Recognises numerals to 10 000

Counting by 10s and 100s (Tasks 13-16)

Level 1 Initial counting by 10s and 100s	Level 2 Off decade counting by 10s	Level 3 Off hundred and off decade counting by 100s
Counts forwards and backwards by 10s and 100s	Counts forwards and backwards by 10s, off the decade	Counts forwards and backwards by 100s off the hundred and by 10s off the decade

Combining and partitioning (Tasks 17-18)

Level 1 To 10	Level 2 To 20
Knows number combinations to 10 and how many more needed to make 10	Can provide standard and non-standard partitioning of a number to 20

Place value (Tasks 19-22)

Level 0 Counts by ones	Level 1 Tens as a unit	Level 2 Tens & ones
Counts the dots on the ten strips individually. Does not see ten as an iterable (countable) unit	Ten is seen as a unit composed of ten ones. Student is dependent on representations of units of ten.	Student can mentally solve 2-digit written number sentences by adding or subtracting units of ten and ones. Does not need materials or representations

Multiplication and division (Tasks 23-28)

Level 1 Perceptual counting by ones (Forming equal groups)	Level 2 Perceptual counting in multiples	Level 3 Repeated numerical composites (Figurative units)	Level 4 Repeated abstract composites	Level 5 Multiplication & division as operations
Student does not see equal groups as composite units and thus counts each item by ones	Uses groups or multiples in perceptual counting and sharing, e.g. rhythmic or skip counting	Equal grouping and counting without individual items visible. Uses group markers or organisers	Constructs composites and coordinates the count. Uses repeated addition or subtraction	Uses known facts and inverse operations to derive answers.

Area multiplication (Task 29)

Level 1 Counts by ones, inconsistent structure	Level 2 Forms a composite unit	Level 3 Coordinates units
Tries to visualise structure, counts by ones	Counts in multiples	Uses multiplication (7x3, 3x7)